

Intensity Dependent Spread Processor and Workstation

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The Intensity Dependent Spread (IDS) is an adaptive algorithm which is modified according to the local intensity in the scene. (This results in a nonlinear process which cannot take advantage of rather nice linear transform methods.) The computation is similar to a neural net whereby intensity information is moving from each input pixel to a set of surrounding output pixels in a manner described by Cornsweet and Yellott.

A prototype of a VLSI IDS processor is being developed and implemented in a workstation environment. The workstation consists of a SUN 3/260 and a DATACUBE pipeline processor. The IDS prototype is a board set which operates in the DATA CUBE processor. The SUN 3/260 performs control, background processing, IDS simulation and image display functions.